

## Appendix to Protest under 37 CFR 1.291

part of #4

JUL 24 2000

In Re:

Application of Dickens

Serial No:

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For:

For: Re-issue of U.S. Patent 5,806,063

Issued September 8, 1998

Based on application Serial No. 725,574

Filed October 3, 1996

Entitled: Date formatting and sorting for date spanning the turn of the centery

Claim Charts

DeForest DEF1-15 Ohms OH1-10

Japanese Publication PUPA1-76

Shaughnessy

SH1-27

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## Exhibit List

Fig. 1 and 2 of the original application, as filed

2 Dickens Exhibit A

3 Claim 1 of the application, as filed

4 Claim 11 of the application, as filed

5 Supplemental amendment of April 1998

6 Lysgaard, "The Time Bomb", <u>IFIP TC8 Conference on Governmental and Municipal</u>

Information Systems, p. 513-519, 1987

Ohms, "Computer Processing of Dates Outside the 20<sup>th</sup> Century", <u>IBM Systems Journal</u>,

Volume 25, Number 2, 1986, pages 244-251

8 Shaughnessy U.S. Patent 5,630,118;

9 Shaw, "CAP Gemnni Tackles the Year 2000", <u>NEWS 3X/400</u>, June 1995, p. 30

DeForest Post to comp.lang.cobol of April 24, 1995

Japanese Published Application 06-103133, April 15, 1994

Japanese Published Application 06-103133, April 15, 1994 – Translation

	Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
:	1. A method of processing symbolic	The "flat out file conversion" is a
	representations of dates stored in a	processing of date data from a
	database, comprising the steps of	database
	providing a database with symbolic	The four lines after "01" show use of
	_	DD, MM and YY data. The author
:	representations of dates stored	acknowledges the time limitation of
	therein according to a format wherein	the process, this corresponds to the
	M <sub>1</sub> M <sub>2</sub> is the numerical month	claimed window limitation.
	designator, D <sub>1</sub> D <sub>2</sub> is the numerical day	Claimed window limitation.
	designator, and Y <sub>1</sub> Y <sub>2</sub> is the numerical	
	year designator, all of the symbolic	
	representations of dates falling	
	within a 10-decade period of time;	mbo releation of VV 50 carried an
	selecting a 10-decade window with a	The selection of $Y_AY_B = 50$ carries an
	YAYB value for the first decade of the	implicit 10 decade limitation, with 50
Ì	window YAYB being no later than the	being "no later" as claimed.
	earliest Y <sub>1</sub> Y <sub>2</sub> year designator in the	•
	database;	
	determining a century designator C <sub>1</sub> C <sub>2</sub>	The century determination in the logic
	for each symbolic	is substantively identical to Dickens'
	representation of a date in the	Exhibit A and is thus an anticipation
	database, C <sub>1</sub> C <sub>2</sub> having a first value if	which is should be considered as
	$Y_1Y_2$ is less than $Y_AY_B$ and having a	admitted by Dickens.
100	second value if $Y_1Y_2$ is equal to or	
	greater than YAYB; and	
	reformatting the symbolic	The reformatting is also identical to
	representation of the date with the	Exhibit A and is thus an anticipation
	values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to	which should be considered as admitted
	facilitate further processing of the	by Dickens
	dates	
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Reissue Application	DeForest Post to comp.lang.cobol Foru
	of April 24, 1995
2. The method of claim 1, wherein the	DeForest is directed to Y2K and by
10-decade window includes the decade	definition propose a window which
beginning in the year 2000.	includes the year 2000
3. The method of claim 2, wherein the	DeForest explicitly describes the
step of determining includes the step	century designators 19 and 20
of determining the first value as 20	
and the second value as 19.	
4. The method of claim 1, including an	Response, p. 14 admits that sorting
additional step, after the step of	after Y2K correction is part of the
reformatting, of sorting the symbolic	prior art.
representations of dates.	
5. The method of claim 1, wherein the	The post shows the identical
step of reformatting includes the step	reformatting, and the reference to a
of reformatting each symbolic	"file conversion" indicates the
representation of a date into the	procedure is applied to each date in
format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	the file.
6. The method of claim 5, including an	Response, p. 14 admits that sorting
additional step, after the step of	after Y2K correction is part of the
reformatting, of sorting the symbolic	prior art.
representations of dates using a	
numerical-order sort.	
8. The method of claim 1, wherein the	The Post shows that $Y_AY_B = 50$ , i.e.,
step of selecting includes the step of	is 0 (zero).
selecting $Y_AY_B$ such that $Y_B$ is 0	
(zero).	
numerical-order sort.  8. The method of claim 1, wherein the step of selecting includes the step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).  9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their	DeForest's reference to a "flat out
additional step, after the step of	file conversion" inherently includes
reformatting, of storing the symbolic	storing the reformatted data.
representation of dates and their	
associated information back into the	
database.	
10. The method of claim 9, including	Data bases are used for accessing and
the additional step, after the step of	using the stored information, thus the
reformatting, of manipulating	manipulating is inherent.
information in the database having the	,
reformatted date information therein.	
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	Reissue Application	DeForest Post to comp.lang.cobol Forum
	11. A method of processing dates in a	of April 24, 1995 The "flat out file conversion" is a
	database, comprising the steps of	processing of date data from a database
	providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The four lines after "01" show use of DD, MM and YY data. The author acknowledges the time limitation of the process, this corresponds to the claimed window limitation.
	selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The selection of $Y_AY_B = 50$ carries an implicit 10 decade limitation, with 50 being "no later" as claimed.
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	The century determination in the logic is substantively identical to Dickens' Exhibit A and is thus an anticipation which should be considered as admitted by Dickens.
	reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The reformatting is also identical to Exhibit A and is thus an anticipation which should be considered as admitted by Dickens
	sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	Dickens admits, Response, p. 14, that sorting "after Y2K correction" is part of the prior art
The state of the s		

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
13. The method of claim 11, wherein the step of selecting includes the step of selecting $Y_AY_B$ .	DeForest has selected $Y_AY_B = 50$ , i.e., $Y_B$ is 0 (zero).
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The indication that the author's "solution" is a "flat out file conversion" indicates that the result of the conversion is stored.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Data bases are used for accessing and using the stored information - thus manipulating database information is inherent in any database, including DeForest's.

Reissue Application	Ohms, Computer Processing of dates outside the twentieth century, 1986
1. A method of processing symbolic representations of dates stored in a	Ohms describes a "date processing method" (p. 244
database, comprising the steps of providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	This data, DD, MM and YY is a classic short Gregorian date, see p. 247. The conversion function described at p. 248 works with any format which includes 2 digit years. Ohms describes the 100 year (i.e., 10-decade) period of time limitation at p.249. The ability to convert from this format to a four digit year format, CCYY, is described on p. 248, first in the paragraph describing windowing and in part in the next paragraph which points out that the conversion from one file format to another is "trivial".
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	See p. 248, right hand column,-specify a year as the desired starting point of the range - this is $Y_AY_B$ , which is no later than any year date in the data base
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and	The century designation is determined by comparing the year date $(Y_1Y_2)$ with $Y_AY_B$ , if the year, $Y_1Y_2$ , is greater then the century is the earlier one and vice versa, see p. 248.
window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database; determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	The "implied century" (see p. 248, right hand column) is $C_1C_2$ and treating the date as including the "implied century" data is the claimed "reformatting", since the data included the other parameters at the outset.

Reissue Application	Ohms, Computer Processing of dates outside the twentieth century, 1986
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	Ohms is directed to Y2K and by definition propose a window which includes the year 2000
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Ohms is directed to Y2K and by definition propose century designator 19 and 20
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	Response, p. 14 admits that sorting after Y2K correction is part of the prior art.
7. The method of claim 1, wherein the step of providing a database includes the step of	
converting pre-existing date information having a different format into the format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator and $Y_1Y_2$ is the numerical year designator.	In the table on p. 247 Ohms teaches several date format conversions and, on p. 248 notes that conversion of isolated files to new date formats is "trivial".
is the numerical year designator.  9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	Ohms teaches that storing the reformatted dates can be done, see pp 248-9.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	Data bases are used for accessing and using the stored information, thus the manipulating is inherent.

Patent 5,806,063, Reissue application, Claim 1	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation.
providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited. "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range $[0011]$ .
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ , and	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	translation] The reference is directed to Y2K, i.e., the transition from the 20 <sup>th</sup> to the 21 <sup>st</sup> century and so, by definition, uses a window which encompasses the year 2000 [Object].
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
5. The method of claim 1, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format.
format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .  6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].

Reissue application  8. The method of claim 1, wherein the step of selecting includes the step of selecting Y <sub>A</sub> Y <sub>B</sub> such that Y <sub>B</sub> is 0 (zero).  9. The method of claim 1, including an additional step, after the step of	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]  The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .  The key file 3 has the restored date keys and it is part of the database
reformatting, of storing the symbolic representation of dates and their associated information back into the database.	[0016] to correspond to this clause.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

	Patent 5,806,063, Reissue application, claim 11	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database.
	providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades. Finally it is apparent that the 10 decade period includes the decade beginning
	selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	with the year 2000. The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
	reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append $C_1C_2$ , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . Note also that

	the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing". [0016]

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
13. The method of claim 11, wherein the step of selecting includes the	The reference proposes a "threshold value" of 50 [Action] which
step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	corresponds to $Y_A = 5$ and $Y_B = 0$ .
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

	Reissue Application, claim 16  16. A method of processing symbolic representations of dates stored in a database, comprising the steps of:  providing a database with symbolic representations of dates stored therein according to a format wherein M <sub>1</sub> M <sub>2</sub> is the numerical month designator D <sub>1</sub> D <sub>2</sub> is the numerical day designator, and Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation] The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database. Each item of date data is a symbolic representation The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or
	period of time; selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest year designator in the database;	'1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades  The "threshold value" or α corresponds to Y <sub>A</sub> Y <sub>B</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as between n <sub>0</sub> n <sub>1</sub> , the minimum value of the 20 <sup>th</sup> Century and the lower value, n <sub>2</sub> n <sub>3</sub> , which is the maximum value of the 21 <sup>st</sup> Century [0011]. Although not mentioned in this reference (nor in the specification of the application)
		those skilled in the art have applied the term "pivot date" to what the claim terms $Y_AY_B$ and the reference refers to as the "threshold value" or $\alpha$ .
	determining a century designator $C_1C_2$ for each symbolic representation of a date in the database <sub>1</sub> $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ and;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
	reformatting the symbolic representation of each symbolic representation of a date in the	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining

database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$  and  $D_1D_2$ , in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.

month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with  $Y_1Y_2M_1M_2D_1D_2$  and append  $C_1C_2$ , to end up with  $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

	Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	17. The method of claim 16, wherein the window includes at least a portion of the decade beginning in the year 2000.	The reference is directed to Y2K, i.e., the transition from the 20 <sup>th</sup> to the 21 <sup>st</sup> century and so, by definition, uses a window which encompasses the year 2000 [Object].
	18. The method of claim 17, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
	19. The method of claim 16, including an additional step; after the step of reformatting of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
	20. The method of claim 16, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ separately from the symbolic	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format.
	representations in the database.	The recitation of "reformatting separately" cannot serve to distinguish the reference since there is no support in the specification for this feature.
	21. The method of claim 20 including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical—order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].
	23. The method of claim 16, wherein the step of selecting includes the step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .
	24. The method of claim 16, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	The key file 3 has the restored date keys and it becomes part of the database [0016] to correspond to this clause.
	25. The method of claim 24, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

	Reissue application, claim 26	Japan 06-103133, April 15, 1994
		[Citations are to the paragraph
		numbers in the text of both the
		Japanese publication and in the
}		translation]
ŀ	A method of processing dates in a	The reference is directed at managing
!	database, comprising the steps of:	date keys of a data file, [Title] which
	in the same of the	is effected by processing date data in
		a database
ŀ	providing a database with dates stored	The unprocessed database uses two
	therein according to a format wherein	digits to represent each of year,
	$M_1M_2$ is the numerical month designator,	month and day data, see the data in
	$D_1D_2$ is the numerical day designator,	date file 1, an example is the first
	and $Y_1Y_2$ is the numerical year	entry, "991203" which represents 3 <sup>rd</sup>
	designator, all of the symbolic	Dec. 1999 [0003]. The text [0010 and
	representations of dates falling	0011] make it clear that the date
	within a 10-decade period of time;	range is limited "The reason for this
	Wilding a go dood Fellow 10 ,	is that the data file 1 does not
		contain the year data '2099' or
		'1900'.", there is a "minimum value of
		the year data in the 20 <sup>th</sup> century" and
- 1		a "maximum value of the year data in
		the 21st century" with the "threshold
		value" in between these two. This is
	·	only possible if the span of the data
*		base is less than 10 decades
	selecting a window with a YAYB value	The "threshold value" or α corresponds
: 5	for a pivot date of the window, YAYB	to YAYB and it is "no later" than the
	being no later than the earliest Y1Y2	earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as
	year designator in the database;	between $n_0n_1$ , the minimum value of the
	-	20 <sup>th</sup> Century date range and the lower
∄		value, n <sub>2</sub> n <sub>3</sub> , which is the maximum
		value of the 21 <sup>st</sup> Century date range
		[0011]. Although not mentioned in this
		reference (nor in the specification of
		the application) those skilled in the
		art have applied the term "pivot date"
		to what the claim terms $Y_AY_B$ and the
		reference refers to as the "threshold
		value" or α.
}	determining a century designator C <sub>1</sub> C <sub>2</sub>	A comparison is made between the year
	for each date in the database, $C_1C_2$	data, nn, and the threshold value, $\alpha$ ;
	having a first value if $Y_1Y_2$ is less	if nn > $\alpha$ , the century designator "19"
	than $Y_AY_B$ and having a second value if	is used, otherwise, that is if $nn \le \alpha$ ,
	$Y_1Y_2$ is equal to or greater than $Y_AY_B$	the other century designator, "20" is
	<u>-</u>	used [0015]. Note also that the
		processing is applied to "the
		successive records of data file 1 and
		terminates when the last record is
		processed", i.e., the processing is
		applied to "each" record. [0015]
	reformatting the symbolic	The date data has the selected century
	reformatting the symbolic representation of each symbolic	designator appended. "In this way, it
	representation of each symbolic representation of a date in the	restores the 4-digit year data, and,
,	database, without the addition of any	combining this with the remaining
	new data field to the database with	month and day data, transfers it to
	11011 4404 11014 60 0110 44040400 111011	l—

the key file compilation unit 5". the reformatted symbolic representation of each date in the That is, we start with [0015] database having the values  $C_1C_2$ ,  $Y_1Y_2$ ,  $Y_1Y_2M_1M_2D_1D_2$  and append  $C_1C_2$  , to end up with  $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . The processing  $M_1M_2$  and  $D_1D_2$ , in order to facilitate is applied to "the successive records collectively further processing, the of data file 1 and terminates when the reformatted symbolic representations last record is processed", i.e., the of each of the symbolic processing is applied to "each" representations of each of the dates; record. [0015] Since this may be and accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field". The key file compilation unit 5 sorting the dates in the form arranges the data in ascending order  $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . "by performing sorting processing ...". [0016]

Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
28. The method of claim 26, wherein the step of	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .
selecting includes the step of:	
selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	
29. The method of claim 26, including an additional step after the step of sorting, of;	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
storing the sorted dates and their associated information back into the database.	
30. The method of claim 29, including the additional step, after the step of sorting, of:	The act of manipulating information is the purpose of any database - it is inherent in the reference.
manipulating information in the database having the reformatted dates therein.	
manipulating information in the database having the reformatted dates therein.	

	Reissue application, claim 31	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing symbolic representations of dates stored in a database, comprising the steps at:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database. Each data item is a symbolic representation.
	providing a database with symbolic representations of dates stored therein according to a format wherein $Y_1Y_2$ is the numerical year designator:	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003
	selecting a window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
	determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the year data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
	reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with Y1Y2M1M2D1D2 and append C1C2, to end up with C1C2Y1Y2M1M2D1D2. Clearly this means each item has the values C1C2 and Y1Y2. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be
		accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

Reissue Application, claim 32	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database
providing a database with symbolic representations of dates stored therein according to a format wherein Y1Y2 is the numerical year designator	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].
selecting a window with a $Y_1Y_2$ , value for the pivot year of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms $Y_AY_B$ and the reference refers to as the "threshold value" or $\alpha$ .
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the year data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each of the dates in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with Y1Y2M1M2D1D2 and append C1C2, to end up with C1C2Y1Y2M1M2D1D2. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to

	modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".
sorting the dates in the form $C_1C_2Y_1Y_2$ .	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing". [0016]

Application, claim 33	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
ntations of dates stored in a e, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation
ntations of dates stored according to a format wherein	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].
first decade of the window, ng no later than the earliest	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
h symbolic representation of a the database, $C_1C_2$ having a alue if $Y_1Y_2$ is less than $Y_AY_B$ ing a second value if $Y_1Y_2$ is	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
entation of each symbolic entation of a date in the se, without changing any of the confidence of a date in the cabase during the reformatting with the reformatted symbolic entation of each date in the se having the values $C_1C_2$ , $Y_1Y_2$ , or to facilitate collectively processing the reformatted is representations of each of	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reformatted data has the form of $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .  The meaning to be applied to the clause "without changing any of the symbolic representations of a data in the database during the reformatting step" is unclear since, neither the clause nor anything like it is found either in the Dickens specification or file history. There is then, no basis for distinguishing the
	d of processing symbolic ntations of dates stored in a e, comprising the steps of:  Ing a database with symbolic ntations of dates stored according to a format wherein the year designator,  Ing a window with a YAYB value first decade of the window, and no later than the earliest ar designator in the database;  Ining a century designator C1C2 h symbolic representation of a the database, C1C2 having a alue if Y1Y2 is less than YAYB ing a second value if Y1Y2 is or greater than YAYB, and  Intting the symbolic entation of a date in the see, without changing any of the crepresentations of a date in the see, without changing any of the crepresentations of a date in the see having the values C1C2, Y1Y2, er to facilitate collectively reprocessing the reformatted to representations of each of see.

Reissue Application, claim 34

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000 [0005]. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003].

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,

The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting; and,

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The processing proceeds by selecting a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest  $20^{th}$  Century year and the lower value, n2n3, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is ≤) which means that the "threshold value" may be a date stored Since this in the database. processing may be accomplished "without having to modify" the

running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.

"existing files" [0018] it is clear that there has not been the addition of a "new data field".

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. meaning to be attributed to the phrase "running a program to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is difficult to determine since there is no such phrase or anything like it in the Dickens specification or file history. Clearly however, this does not represent a distinction between this clause of the claim and the reference.

Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
35 A method of claim 34 further comprising the step of: opening the database prior to the step	Opening a database is typically the initial step for use. As such the step is inherent in the reference.
of converting.  36. The method of claim 34 further comprising the step of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
37. The method of claim 35 further comprising the step of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
38. The method of claim 34 further comprising the step of: collectively manipulating the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
39. The method of claim 35 further comprising the step of: collectively manipulating the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
40. The method of claim 34 further comprising the step of: collectively sorting the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
41. The method of claim 35 further comprising the step of: collectively sorting the converted symbolic representations according to	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or

a different data field contained in	manipulate, there is nothing else in
the database from the at least one	this claim. There is no support in
date field, prior to the step of	the specification for any other
running the program on the converted	meaning nor is there any support for
symbolic representations.	sorting "according to a different data
	field".
42. The method of claim 34 further	The reference teaches both sorting a
comprising the step of:	database as well as "otherwise
	manipulating" the data. Assuming the program is effected to sort or
collectively manipulating the	manipulate, there is nothing else in
converted symbolic representations	this claim. There is no support in
according to a different data field contained in the database from the at	the specification for any other
least one date field, prior to the	meaning nor is there any support for
step of running the program on the	sorting "according to a different data
converted symbolic representations.	field".
43. The method of claim 35 further	The reference teaches both sorting a
comprising the step of:	database as well as "otherwise
collectively manipulating the	manipulating" the data. Assuming the
converted symbolic representations	program is effected to sort or
according to a different data entry	manipulate, there is nothing else in
field contained in the database from	this claim. There is no support in
the at least one date field, prior to	the specification for any other
the step of running the program on the	meaning nor is there any support for
converted symbolic representations.	sorting "according to a different data
	entry field".
44. The method of claim 34 wherein the	This claim merely calls for data manipulation of a database which is
program performs an operation which	inherent in the reference.
manipulates the data in a data field associated with the at least one date	limerene in the reference.
field of the database according to the	.
converted symbolic representation of	
the date.	
45. The method of claim 35 wherein the	This claim merely calls for data
program performs an operation which	manipulation of a database which is
manipulates the data in a data field	inherent in the reference
associated with the at least one date	
field of the database according to the	
Converted symbolic representation of	
the date.	The reference calls for repetitively
46. The method of claim 34 wherein the	}
step of converting includes converting at least a. substantial portion of	until all dates are converted.
each of the plurality of symbolic	ancii aii aacco aic converca.
representations of dates in the at	
least one date field and repeating	
this step until each of the date data	
entries in the at least one date field	
is converted into the format that doe	5
not have the ambiguity.	
47. The method of claim 35 wherein the	
step of converting includes converting	
at least a substantial portion of eac	until all dates are converted
of the plurality of symbolic	
representations of dates in the at least one date field and repeating	
Teast one date trend and repeating	

this step until each of the date data	
entries in the at least one date field	
is converted into the format that does	
not have the ambiguity.	
48. The method of claim 46 further	The reference teaches both sorting a
comprising the steps of:	database as well as "otherwise
comprising one beeps e-	manipulating" the data. Assuming the
collectively sorting the converted	program is effected to sort or
symbolic representations prior to the	manipulate, there is nothing else in
1 =	this claim. There is no support in
step of running the program on the	the specification for any other
converted symbolic representations.	meaning.
	The reference teaches both sorting a
49. The method of claim 47 further	
comprising the steps of:	database as well as "otherwise
	manipulating" the data. Assuming the
collectively sorting the converted	program is effected to sort or
symbolic representations prior to the	manipulate, there is nothing else in
step of running the program on the	this claim. There is no support in
converted symbolic representations.	the specification for any other
	meaning.
50. The method of claim 46 further	The reference teaches both sorting a
comprising the step of:	database as well as "otherwise
	manipulating" the data. Assuming the
collectively manipulating the	program is effected to sort or
converted symbolic representations.	manipulate, there is nothing else in
	this claim. There is no support in
	the specification for any other
	meaning.
51. The method of claim 49 further	The reference teaches both sorting a
comprising the step of;	database as well as "otherwise
Ecomprising the step or,	manipulating" the data. Assuming the
	program is effected to sort or
collectively manipulating the	manipulate, there is nothing else in
converted symbolic representations.	this claim. There is no support in
	the specification for any other
	<u> </u>
	meaning.
52. The method of claim 46 further	The reference teaches sorting a
comprising the step of:	database. Assuming the program is
	effected to sort or manipulate, there
collectively sorting the converted	is nothing else in this claim. There
symbolic representations according to	is no support in the specification for
a different data field in the database	any other meaning nor is there any
than the at least one date field,	support for sorting on "a different
prior to the step of running the	data field".
program.	
53. The method of claim 47 further	The reference teaches both sorting a
comprising the step of:	database. Assuming the program is
	effected to sort or manipulate, there
collectively sorting the converted	is nothing else in this claim. There
symbolic representations according to	is no support in the specification for
a different data field in the database	any other meaning nor is there any
than the at least one date field,	support for sorting on "a different
prior to the step of running the	data field".
program.	
54. The method of claim 52 further	Since the reference deals with a
comprising the step of:	database it inherently teaches

Γ	collectively manipulating the	manipulating the data as well as
	converted symbolic.	collectively manipulating the data.
-	55. The method of claim 53 further	Since the reference deals with a
	comprising the step of:	database it inherently teaches
	collectively manipulating the	manipulating the data as well as
	converted symbolic representations	collectively manipulating the data
-	56. The method of claim 52 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
	associated with the at least one date	collectively manipulating the data
	field of the database according to the	
ĺ	converted symbolic representation of	
	the date.	
<u> </u>	57. The method of claim 53 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
	associated with the at least one date	collectively manipulating the data
	field of the database according to the	
•	converted symbolic representation of	
1	the date.	
r	58. The method of claim 54 wherein the	Since the reference deals with a
2:24	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
¥	manipulates the data in a data field associated with the at least one date	collectively manipulating the data
	field of the database according to	
	the. converted symbolic representation	
<u> </u>	of the date.	
	59. The method of claim 55 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
7 -47	associated with the at least one date	collectively manipulating the data
ਰ≅		
#	converted symbolic representation of	
	the date.	
4		
	the date.	

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of. the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the The threshold value is database. selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

"converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

running a program on each of the converted symbolic representations of [0006]. Typically sorting is effected by "running a program" and is thus

running a program on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the date data symbolic representations of dates contained in the at least one date field of the database.

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

that the "threshold value" may be a

meaning to be attributed to the phrase

date stored in the database.

Reissue application, claim 61

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations at each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least date field of the database for purposes of such windowing and converting;

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the The threshold value is database. selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. A comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the

Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means that the

"threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations separately from the symbolic representations of dates contained in the at least one date field of the database.

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program ... to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 62

Japan 06-103133, April 15, 1994
[Citations are to the paragraph
numbers in the text of both the
Japanese publication and in the
translation]
The reference is directed at man

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

storing the converted symbolic representations separate from the at least one date field of the database; and  The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there in no such phrase, or anything like it, to be found in the Dickens specification or file history. In a event, this cannot be a basis to distinguish the reference.  Tunning a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.  If ig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the database" is not clear since there in the Dickens specification or file history. In a event, this cannot be a basis to distinguish the reference.  Sorting is effected as described in [0006]. Since the phrase "running a program to sort separately from the data at symbolic representations, separately from the database is in not found either in the Dickens specification file history, the meaning to be attributed to this clause is in doubter the database.		that the "threshold value" may be a
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It is clear, however that there is n distinction between this clause of t claim and the reference.		

Reissue application, claim 63

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents  $3^{\rm rd}$  Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value  $n_2n_3$ , which is the maximum value of the 21st Century [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is ≤) which means that the

	"threshold value" may be a date stored
	in the database.
storing the converted symbolic representations separate from the at least one date field of the database: and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program collectively on the stored converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program to sort separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field at the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of;

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

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Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

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	that the "threshold value" may be a
	date stored in the database. The
	meaning to be attributed to the phrase
	"converting without modifying" is
	not apparent since there is no such
	phrase (or anything like it) to be
	found in either the Dickens
	specification or the file history.
	Clearly, however, this phrase does not
	distinguish from the reference.
storing the converted symbolic	Fig. 2 and the table of key file 3
representations separate from the at	make it clear that the converted data
least one date field in the database;	is stored. The meaning to be
and	attributed to "storing separate from
and	the at least one date field of the
	database" is not clear since there is
	no such phrase, or anything like it,
}	to be found in the Dickens
	specification or file history. In any
	event, this cannot be a basis to
	•
	distinguish the reference.
running a program on the stored	Sorting is effected as described in
converted symbolic representations to	[0006]. Since the phrase "running a
sort or otherwise manipulate data in	program to sort separately from
the database according to the dates	the symbolic representations of dates
represented by the converted symbolic	contained in the at least one date
representations separately from the	field of the database" is not found
symbolic representations of dates	either in the Dickens specification or
contained in the at least one date	file history, the meaning to be
field of the database.	attributed to this clause is in doubt.
1	It is clear, however that there is no
	distinction between this clause of the
	claim and the reference.

Reissue Application, claim 65

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database,

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value, n<sub>2</sub>n<sub>3</sub>, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

	that the "threshold value" may be a date stored in the database.
without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;	It is not apparent how "converting" can be effected without "modifying". There is no mention of converting without modifying in either the Dickens specification or file histor Consequently this cannot be used to distinguish the claim from the reference.
storing the converted symbolic representations separate from the at least one date field in the database; and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In a event, this cannot be a basis to distinguish the reference.
running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,	Sorting is effected as described in [0006]
separately from the symbolic representations of dates contained in the at least one date field of the database.	Since the phrase "running a program to sort separately from the symbol representations of dates contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

	Reissue application, claim 66	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing dates in a	The reference is directed at managing
	database, comprising the steps of:	date keys of a data file, [Title
	providing a database with dates stored	The unprocessed database uses two
	in at least one date field therein	digits to represent year data, two digits for month data and two digits
	according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator,	for day data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec.
		1999 [0003].
	selecting a window with a $Y_AY_B$ value for a pivot date of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	Assuming that the meaning to be attributed to "pivot date" is the common meaning, then the "threshold value" is the pivot date, which is the same as $Y_AY_B$ . The assumption is necessary since neither the Dickens specification nor file history mentions "pivot date". The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$
<b>E</b>		Century date range [0011]
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ,	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
	reformatting the symbolic representation of each symbolic representation of a date in a portion of the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ ; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append $C_1C_2$ , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .
	repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

	$\overline{}$
representations of each of the	
symbolic representations of each of	
the dates.	

	A method of processing dates in a database, comprising the steps of: providing a database with dates stored in at least one date field therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator;	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation] The reference is directed at managing date keys of a data file, [Title] The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The "threshold value" or a corresponds
	selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	to $Y_A Y_B$ and it is "no later" than the earliest $Y_1 Y_2$ since it is selected as between $n_0 n_1$ , the minimum value of the $20^{th}$ Century and the lower value $n_2 n_3$ , which is the maximum value of the $21^{st}$ Century date range $[0011]$ .
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015].]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
	reformatting the symbolic representation of each symbolic representation of a date in a portion off the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ ; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits, 19 or 20, to represent the century, just as described in the Dickens specification. To the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
	repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

ſ	Reissue Application, claim 68	Japan 06-103133, April 15, 1994
		[Citations are to the paragraph
		numbers in the text of both the
İ		Japanese publication and in the
İ		translation]
-	a la la farma de la combolica	The reference is directed at managing
	A method of processing symbolic	date keys of a data file, [Title]
	representations of dates stored in a	date keys of a data first
	database, comprising the steps of:	The supposed database uses two
	providing a database with symbolic	The unprocessed database uses two
	representations of dates stored in at	digits to represent year data, see the
	least one date field therein according	data in date file 1, an example is the
	to a format wherein $Y_1Y_2$ is the	first entry, "991203" which represents
	numerical year designator;	3 <sup>rd</sup> Dec. 1999 [0003].
	selecting a window with a YAYB value	Assuming the term "window" is given
	for the first decade of the window,	the common definition, then the
	Y <sub>A</sub> Y <sub>B</sub> being no later than the earliest	"threshold value" of the reference
	Y <sub>1</sub> Y <sub>2</sub> year designator in the at least	corresponds to the beginning of the
1	one date field of the database;	"window". The assumption is necessary
		since the term "window" is not found
		in the Dickens specification. The
		"threshold value" or α corresponds to
		Y <sub>A</sub> Y <sub>B</sub> and it is "no later" than the
		earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as
		between $n_0n_1$ , the minimum value of the
胃		20 <sup>th</sup> Century date range and the lower
		value, $n_2n_3$ , which is the maximum
		value of the 21st Century date range
		[0011]. The value of $\alpha$ defines a
## # # # # # # # # # # # # # # # # # #		window of 10 decades duration.
	determining a century designator for	A comparison is made between the date
75	each symbolic representation of a date	data, nn, and the threshold value, $\alpha$ ;
≨	in the database, C <sub>1</sub> C <sub>2</sub> having a first	if nn > $\alpha$ , the century designator "19"
	value if $Y_1Y_2$ is less than $Y_AY_B$ and	is used, otherwise, that is if $nn \le \alpha$ ,
	having a second value if Y1Y2 is equal	the other century designator, "20" is
	to or greater than YAYB; and	used [0015]. Since the processing is
-		
		applied to "the successive records of
	j	data file 1 and terminates when the
		last record is processed", i.e., the
		processing is applied to "each"
1		record. [0015]
ſ	reformatting the symbolic	The date data, augmented with the
	representation of each symbolic	century designator (19 or 20), is then
	representation of a date in at least	written to key file 3; as seen there
ļ	one date field in the database,	the date data has been reformatted to
	without the addition of any new data	add the century designator. That is,
	field to the database, with the	we start with $Y_1Y_2M_1M_2D_1D_2$ and append
	reformatted symbolic representation of	$C_1C_2$ , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .
	each date in the database having the	The reference has added two digits to
	values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , in order to	represent the century, just as has
	facilitate further processing of the	Dickens. To the extent this is
	reformatted symbolic representations	"without the addition" in the
	of each of the symbolic	Dickens patent, so too it is in the
	representations of each of the dates,	reference. The reference accomplishes
	by running a program on the	its ends through use of a programmed
	reformatted symbolic representations	machine, hence operation "by running a
'	of each of the dates.	program" is inherent.
	OF EACH OF THE dates.	

Reissue Application, claim 69	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of: providing a database with dates stored in at least one date field therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator;	The reference is directed at managing date keys of a data file, [Title].  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents
selecting a window with a $Y_{A}Y_{B}$ value for a pivot year of the window, $Y_{A}Y_{B}$ being no later than the earliest $Y_{1}Y_{2}$ year designator in the database:	Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. The "threshold value" or α corresponds to Y <sub>A</sub> Y <sub>B</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as between n <sub>0</sub> n <sub>1</sub> , the minimum value of the 20 <sup>th</sup> Century date range and the lower value, n <sub>2</sub> n <sub>3</sub> , which is the maximum value of the 21 <sup>st</sup>
determining a century designator $C_1C_2$	Century date range [0011]. The value of $\alpha$ defines a window of 10 decades duration.  A comparison is made between the date
for each date in the at least one date field of the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the at least one date field in the database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ ;	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits to represent the century, just as has Dickens, to the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
sorting the reformatted symbolic representations of the dates in the form $C_1C_2Y_1Y_2$ and	Sorting is effected as described in $[0006]$ . Both the reference and the Dickens specification describe sorting on $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .

1 T CATALON DE LO DE 2001 - 20	The "program" is the purpose for maintaining the file.
the dates.	

Reissue application, claim 70

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,

The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]

by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by the symbolic representation of dates stored in the at least one date field, without the addition of any new data field to the database, and

Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. A threshold value is selected lying between non1, the smallest 20<sup>th</sup> Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. The "threshold value" or pivot year is equal to or less than the earliest nn. The reference has added two digits, 19 or 20, to represent the century, just as is described in the Dickens specification. To the extent this is "without the addition ..." in the Dickens patent, so too it is in the reference.

without modifying any of the symbolic representations of dates in the at least one date field, for purposes of such windowing and converting and

running a program on the converted symbolic representations of each of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.

The meaning to be attributed to the phrase "converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

Sorting is effected as described in Typically sorting is effected [0006]. by a program and so "running a program ... to sort" is inherent in the reference. Since the phrase "running a program ... to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 71

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of the database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,

The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]

by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by a symbolic representation of dates stored in the at least one date field, and

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. A threshold value is selected lying between  $n_0n_1$ , the smallest 20<sup>th</sup> Century year and the lower value, n<sub>2</sub>n<sub>3</sub>, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. This is the process, known to others as "windowing", although not mentioned in the specification. In this process, the "threshold value" is, according to prior art usage, the pivot year. although that term is not found in the

	Dickens specification.
without the addition of any new data field to the database for purposes of such windowing and converting;	The reference has added two digits, or 20, to represent the century, just as is described in the Dickens specification. To the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
storing each of the converted symbolic representations of each of the dates separate from the database; and,	The key file 3 represents the stored dates. The meaning to be attributed to "storing separate from the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In an event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations of each of the converted symbolic representations of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations,	Sorting is effected as described in [0006]. Typically sorting is effected by running a program and so this is inherent in the reference.
separately from the date data symbolic representations contained in the at least one date field of the database.	Since the phrase "running a program to sort separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification of file history, the meaning to be attributed to this clause is in doubt It is clear, however that there is no distinction between this clause of the claim and the reference.

	Reissue Application, claim 72	Japan 06-103133, April 15, 1994
		[Citations are to the paragraph
		numbers in the text of both the
		Japanese publication and in the
		translation]
	A method of processing symbolic	The reference is directed at managing
	representations of dates stored in a	date keys of a data file, [Title] which
	database, comprising the steps of	is effected by processing date
		representations in a database. Each
		item of data is a symbolic
		representation
	selecting a database with symbolic	The unprocessed database uses two
	representations of dates stored	digits to represent year data, see the
	therein according to a format wherein	data in date file 1, an example is the
	M <sub>1</sub> M <sub>2</sub> is the numerical month	first entry, "991203" which represents
	designator, D <sub>1</sub> D <sub>2</sub> is the numerical day	3 <sup>rd</sup> Dec. 1999 [0003]. The shows the
İ	designator, and Y <sub>1</sub> Y <sub>2</sub> is the numerical	use of two digits for year, month and
	year designator;	date.
Ī	selecting a 10-decade window with a	The "threshold value" or α corresponds
	$Y_AY_B$ value for the first decade of the	to YAYB and it is "no later" than the
	window being no later than the	earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as
ł	earliest $Y_1Y_2$ year designator in the	between $n_0n_1$ , the minimum value of the
<u></u>	database;	20 <sup>th</sup> Century and the lower value, n <sub>2</sub> n <sub>3</sub> ,
		which is the maximum value of the 21 <sup>st</sup>
		Century date range [0011]. The text
		[0010 and 0011] make it clear that the
		date range is limited "The reason for
		this is that the data file 1 does not
		contain the year data '2099' or
		'1900'." and there is a "minimum value
T#		of the year data in the 20th century"
= [4		and a "maximum value of the year data
		in the 21st century" with the
		"threshold value" in between these
		two. This is only possible if the
		span of the data base is 10 decades.
	determining a century designator C <sub>1</sub> C <sub>2</sub>	A comparison is made between the date
	for each symbolic representation of a	data, nn, and the threshold value, $\alpha$ ;
	date in the database, $C_1C_2$ having a	if nn > $\alpha$ , the century designator "19"
=	first value if $Y_1Y_2$ is less than $Y_AY_B$	is used, otherwise, that is if $nn \le \alpha$ ,
	and having a second value if Y <sub>1</sub> Y <sub>2</sub> is	the other century designator, "20" is
	equal to or greater than $Y_AY_B$ ; and,	used [0015]. Note also that the
		processing is applied to "the
		successive records of data file 1 and
		terminates when the last record is
		processed", i.e., the processing is
		applied to "each" record. [0015]
	reformatting the symbolic	The date data, augmented with the
	representation of each symbolic	century designator (19 or 20), is then
:	representation of a date in the	written to key file 3; as seen there
	database with the values $C_1C_2$ , $Y_1Y_2$ ,	the date data has been reformatted to
	$M_1M_2$ , $D_1D_2$ prior to collectively	add the century designator.
i	further processing information	Thereafter the database is used for
	contained within the database	its intended purpose.
	associated with the respective dates.	

Reissue application, claim 73	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'" and there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ and,	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , to facilitate further processing of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.

Reissue application, claim 74    Sapanse publications are to the paragraph numbers in the text of both the Japanses publication and in the translation]   A method of processing dates in a database, comprising the steps of   The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;   The period of tim	-		25 102122 7
A method of processing dates in a database, comprising the steps of providing a database with symbolic representations of dates stored therein according to a format wherein Y,Y₂ is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  Providing a lo-decade window with a period of time;  Selecting a 10-decade window with a window Y,Y₂ being no later than the window Y,Y₂ bear database;  Selecting a 10-decade window with a window Y,Y₂ being no later than the window Y,Y₂ being no later than the sarliest Y,Y₂ year designator in the database;  The "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades;  The "threshold value" or α corresponds to Y,Y₂ and a y,Y₂ wand it is "no later" than the earliest Y,Y₂ year designator in the database;  The "threshold value" or α corresponds to Y,Y₃ and a y,Y₃ and having a second value if Y,Y₂ is equal to or greater than Y,X₃;  The "threshold value" or α corresponds to Y,Y₃ and y,Y		Reissue application, claim 74	Japan 06-103133, April 15, 1994
A method of processing dates in a database, comprising the steps of adatabase, comprising the steps of providing a database with symbolic representations of dates stored therein according to a format wherein Yi,Y, is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 37° Dec. 1999 [0003]. The text [0010] and 00111 make it clear that the data range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900' and there is a "minimum value of the year data in the 21° century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.  The variance of the contain the year data in the 21° century with the "threshold value" or α corresponds to Y <sub>1</sub> Y <sub>0</sub> , year designator in the database, C <sub>1</sub> C <sub>2</sub> for each date in the database, C <sub>1</sub> C <sub>3</sub> for each date in the database, C <sub>1</sub> C <sub>3</sub> for each date in the database, C <sub>1</sub> C <sub>2</sub> for each date in the database, C <sub>2</sub> C <sub>3</sub> having a first value if Y <sub>1</sub> Y <sub>2</sub> is less than Y <sub>1</sub> Y <sub>0</sub> , is equal to or greater than Y <sub>2</sub> Y <sub>0</sub> ; is equal to or greater than Y <sub>2</sub> Y <sub>0</sub> ; is equal to or greater than Y <sub>2</sub> Y <sub>0</sub> ; is used, otherwise, that is if fin ≤ α, the other century designator, "20" is used (0015). Note also that the processing is applied to "each" record. [0015] is then the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] is the written to key file 3; as seen there that data file 1 data the file 1 was a successive records of data file 1 and terminates when the last record is processed, i.e., the processing is applied to "each" record. [0015] is the written to key file 3; as seen there that data file 1 was a seen there that data file 1 was a seen there that data file 1 was a seen there that data f			
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A method of processing dates in a database, comprising the steps of adata file, [Tittle] which is effected by processing date representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3" Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data in the 20° century" and a "maximum value of the year data in the 20° century" and a "maximum value of the year data in the 20° century and a "maximum value of the year data in the 20° century" and a "maximum value of the year data in the 20° century with the "threshold value" or a corresponds to Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the window Y <sub>2</sub> Y <sub>3</sub> , being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> value for the first decade of the "The "threshold value" or a corresponds to Y <sub>4</sub> Y <sub>3</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is selected as between hose, the window Y <sub>2</sub> Y <sub>3</sub> and it is the maximu	İ		_
database, comprising the steps of  providing a database with symbolic representations of dates stored therein according to a format wherein Y,Y, is the numerical year designator; all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "99103" which represents and 0011 make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data in the 2014 century" and there is a "minimum value of the year data in the 2014" century" with the "threshold value" in between these two. This is only possible if the "threshold value" or a corresponds to Y,X,Y and it is "no later" than the earliest Y,Y,y year designator in the database;  determining a century designator TC,C2, for each date in the database, C,C2 than ying a first value if Y,Y, is less than Y,XY, and having a second value if Y,Y, is equal to or greater than Y,XY,y; is equal to or greater than Y,XY,y; is equal to or greater than Y,XY,y; to facilitate further processing of the dates; and,  date keys of a data file [Title] which is the represents and data as a batabase.  The unprocessed database uses two digits or represent year data, see the data in date file 1, an example is the first entry, "99103" which represents and 0011 make it clear that the date if the first entry, "99103" which represents and 0011 make it clear that the date in the Gate was not the search of the first entry, "99103" which represents and 0011 make it clear that the date and 0011 make it clear that the date in the first detail in the 21st century was not the year data in the 21st century was not the was not present year data '2099' or '1900'" and there is a "minimum value of the year data in the 21st century was not the was not present year data '2099' or '1900'" and there is a "minimum value of the year data in the 20st century was not the was not present year data '20st century years an			
is effected by processing date representations in a database.  providing a database with symbolic representations of dates stored therein according to a format wherein Y,Y, is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data in the 20th century" and a "maximum value of the year data in the 20th century" and a "maximum value of the year data in the 21th century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.  The "threshold value" or α corresponds to Y <sub>1</sub> Y <sub>2</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> year designator in the database, C <sub>1</sub> C <sub>2</sub> and the database of the value of the 21th Century years and the lower value, n <sub>2</sub> N <sub>3</sub> , which is the maximum value of the 21th Century years [0011].  The "threshold value" or α corresponds to Y <sub>1</sub> Y <sub>2</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> year designator C <sub>1</sub> C <sub>2</sub> . A comparison is made between the date altabase, and the database, and the contury designator "19" is used, otherwise, that is if nn ≤ α, the century designator. "20" is used (0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "the century designator. "20" is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Strictly speaking the reference describes the data format C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>3</sub> M <sub>3</sub> D <sub>1</sub> D <sub>3</sub> Dot C <sub>1</sub> C <sub>3</sub> Y <sub>1</sub> Y <sub>3</sub> . However, the Dickens specification has the same disclosure so there can be no		A method of processing dates in a	
is effected by processing date representations in a database.  Providing a database with symbolic representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [003]. The text [0010] and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '1099' or '1900'" and there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 20th century" and a "maximum value of the year data in the 20th century. With the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.  The "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.  The "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.  The "threshold value" or a corresponds to Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> , and it is "no later" tha		_	
providing a database with symbolic representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents of dates falling within a 10-decade period of time;  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents of data in date file 1, an example is the first entry, "991203" which represents year data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1, an example is the first entry, "991203" which represents year data, see the data in date file 1 and term, will have for the first decade period of time;  The unprocessed database the first entry, "991203" which represents which represents the first entry, "991203" which represents which entry (991001) and 0011] make it clear that the date and the data 1001] make it clear that the date in the year data in the 20 <sup>th</sup> century" with the "threshold value" of the year data in the 20 <sup>th</sup> century" with the "threshold value" or α corresponds to X <sub>1</sub> X <sub>2</sub> and it is "no later" than the earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as between nani, the minimum value of the 20 <sup>th</sup> entry years and the lower value, n <sub>2</sub> n <sub>3</sub> , which is the maximum value of the 20 <sup>th</sup> Y <sub>1</sub> Y <sub>2</sub> is equal to or greater than Y <sub>2</sub> X <sub>2</sub> ;  The "threshold value" or α corresponds to X <sub>1</sub> X <sub>2</sub> and it is "no			
representations of dates stored therein according to a format wherein $Y_1Y_1$ is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;    Part			
representations of dates stored therein according to a format wherein $Y_1Y_2$ is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;  selecting within a 10-decade period of time;  selecting a 10-decade window with a $Y_1Y_2$ is equal to or greater than the equal to greater than the equal to greater than $Y_1Y_2$ is		providing a database with symbolic	The unprocessed database uses two
therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates falling within a 10-decade period of time;    The symbolic representations of dates fall in the 2090 (0003). The text (0010 and 0011) make it clear that the date fall in the date file 1 does not contain the year data in the 2099 (or '1900'" and there is a "minimum value of the year data in the 21 <sup>st</sup> century" with the 'threshold value of the year data in the 21 <sup>st</sup> century with the warming of the date applied to "and only loss for the year data in the 21 <sup>st</sup> century of the year data in the 21 <sup>st</sup> century with the carliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as between noth, the minimum value of the year data in the 21 <sup>st</sup> century years and the lower value, n,n,, which is the maximum value of the yard data for the successive records of data file 1 and terminates when the last record is processed, i.e., the processing is applied to "each record is processed, i.e., the processing is applied to "each record is processed, i.e., the processing is applied to "each record is processed, i.e., the processing is applied to "each record is processed, i.e., the processing is applied to			
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database; $ \begin{array}{c} 20^{\text{th}} \; \text{Century years and the lower} \\ \text{value, } n_2 n_3, \; \text{which is the maximum} \\ \text{value of the } 21^{\text{st}} \; \text{Century years} \\ [0011]. \\ \hline \\ \text{determining a century designator } C_1 C_2, \\ \text{for each date in the database, } C_1 C_2 \\ \text{having a first value if } Y_1 Y_2 \; \text{is less} \\ \text{than } Y_A Y_B \; \text{and having a second value if} \\ \text{Y}_1 Y_2 \; \text{is equal to or greater than } Y_A Y_B; \\ \hline \\ \text{Y}_1 Y_2 \; \text{is equal to or greater than } Y_A Y_B; \\ \hline \\ \text{reformatting each date in the form} \\ \text{C}_1 C_2 Y_1 Y_2 \; \text{to facilitate further} \\ \text{processing of the dates; and,} \\ \hline \\ \text{The date data, augmented with the century designator. Strictly speaking the reference describes the data format $C_1 C_2 Y_1 Y_2 M_1 M_2 D_1 D_2 \; \text{not } C_1 C_2 Y_1 Y_2 \\ \text{However, the Dickens specification has the same disclosure so there can be no} \\ \hline \\ 20^{\text{th}} \; \text{Century years and the lower value, $\alpha_1 \text{ value of the 21^{\text{st}}} \; \text{Century years} \\ \text{(0011)}. \\ \text{A comparison is made between the date data, nn, and the threshold value, $\alpha_2$ if $nn > $\alpha$, the century designator "19" is used, otherwise, that is if $nn \leq \alpha$, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] \\ \text{The date data, augmented with the century designator. Strictly speaking the reference describes the data format $C_1 C_2 Y_1 Y_2 M_1 M_2 D_1 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2 Y_1 Y_2 M_2 D_2, \text{ not } C_1 C_2$			between none the minimum value of the
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However, the Dickens specification has the same disclosure so there can be no			
the same disclosure so there can be no			
distinction between the claim and the			i e
reference.			reference.

sorting the dates in the form $C_1C_2Y_1Y_2$ .	Sorting is effected [0012] on the
	reformatted data. Both the reference
	and the Dickens specification describe
	sorting on the C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> date
	data, thus this recitation cannot
	distinguish from the reference.

[		
· · · · · · · · · · · · · · · · · · ·	Reissue Application, claim 75	Japan 06-103133, April 15, 1994
		[Citations are to the paragraph
		numbers in the text of both the
		Japanese publication and in the
1		translation]
}	A mothed of progogging symbolic	The reference is directed at managing
	A method of processing symbolic	date keys of a data file, [Title] which
	representations of dates stored in a	is effected by processing date
	database, comprising the steps of	is effected by processing date.
		representations in a database. Each
		item of data is a symbolic
		representation
	providing a database with symbolic	The unprocessed database uses two
	representations of dates stored	digits to represent year data, see the
	therein according to a format wherein	data in date file 1, an example is the
	$M_1M_2$ is the numerical month designator,	first entry, "991203" which represents
	$D_1D_2$ is the numerical day designator,	3 <sup>rd</sup> Dec. 1999 [0003], showing the use
	and Y <sub>1</sub> Y <sub>2</sub> is the numerical year	of two digits for year, month and day.
	designator;	
}	selecting a window with a $Y_AY_B$ value	The "threshold value" or α corresponds
	for a pivot date of the window, $Y_AY_B$	to YAYB and it is "no later" than the
:	being no later than the earliest $Y_1Y_2$	earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as
	year designator in the database:	between $n_0n_1$ , the minimum value of the
	year designator in the database.	20 <sup>th</sup> Century years and the lower value
		$n_2n_3$ , which is the maximum value of
		the 21 <sup>st</sup> Century years [0011]. The
		"threshold value" of the reference
		corresponds to the prior art term
Ħ		"pivot date", although that term is
		not found in the Dickens specification
		or file history.
# #	determining a century designator C <sub>1</sub> C <sub>2</sub>	A comparison is made between the date
-	for each symbolic representation of a	data, nn, and the threshold value, $\alpha$ ;
	date in the database, $C_1C_2$ having a	if nn > $\alpha$ , the century designator "19"
	first value if $Y_1Y_2$ is less than $Y_AY_B$	is used, otherwise, that is if $nn \leq \alpha$ ,
	and having a second value if $Y_1Y_2$ is	the other century designator, "20" is
	greater than YAYB; and	
		luced [0015] Note also that the
-		used [0015]. Note also that the
		processing is applied to "the
		processing is applied to "the successive records of data file 1 and
		processing is applied to "the successive records of data file 1 and terminates when the last record is
		processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is
		processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
	reformatting the symbolic	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the
	representation of each symbolic	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then
	representation of each symbolic representation of a date in the	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there
	representation of each symbolic representation of a date in the database, without the addition of any	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to
	representation of each symbolic representation of a date in the	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch
	representation of each symbolic representation of a date in the database, without the addition of any	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19"
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ ,	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19"
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub>
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted symbolic representations, of each of	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing. The reference has added two digits to
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted symbolic representations, of each of the symbolic representations of each	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing. The reference has added two digits to represent the century, just as in the
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted symbolic representations, of each of	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing. The reference has added two digits to represent the century, just as in the Dickens specification. If this
	representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted symbolic representations, of each of the symbolic representations of each	processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing. The reference has added two digits to represent the century, just as in the

addition of any new data field to the
database" then that feature is
anticipated in the reference.

Reissue Application, claim 76	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database.
providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator;	The unprocessed database uses two digits to represent year data, two digits for month data and two digits for day, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]
selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. The "threshold value" of the reference corresponds to the prior art term "pivot date", although that term is not found in the Dickens specification or file history.
determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the year date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ , in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing.
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	Sorting is effected [0012] using the full, 8 digit dates as specified.

Reissue Application	Shaughnessy US Patent 5,630,118
1. A method of processing symbolic representations of dates stored in a database, comprising the steps of	The disclosed software assigns a century value to a two digit year dat (7/6+), which is processing of symbolic dates
providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18,  This processing is limited to dates which span 100 years, see below
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 of 4, as the "end" of the 100 year range the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15) the reformatting is described at 2/30 32; 6/57-

Reissue Application	Shaughnessy 5,630,118
2. The method of claim 1, wherein the	Shaughnessy is directed to Y2K and by
10-decade window includes the decade	definition propose a window which
beginning in the year 2000.	includes the year 2000
3. The method of claim 2, wherein the	Shaughnessy is directed to Y2K and by
step of determining includes the step	definition propose century designators
of determining the first value as 20	19 and 20
and the second value as 19.	
4. The method of claim 1, including an	Shaughnessy suggest a further sorting
additional step, after the step of	operation or an operation equivalent
reformatting, of sorting the symbolic	to sorting. Shaughnessy describes date
representations of dates.	comparisons (col 4, lines 37-62, col.
	8, line 33-col. 12, line 19
5. The method of claim 1, wherein the	Shaughnessy uses this format, see 6/58
step of reformatting includes the step	
of reformatting each symbolic	
representation of a date into the	
format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	
6. The method of claim 5, including an	Shaughnessy teaches using the
additional step, after the step of	reformatted data for a date
reformatting, of sorting the symbolic	comparisons, see (col 4, lines 37-62,
representations of dates using a	col. 8, line 33-col. 12, line 19).
representations of dates using a numerical-order sort.	This is equivalent to sorting
7. The method of claim 1, wherein the	
step of providing a database includes	
the step of	
converting pre-existing date	Shaughnessy teaches a host of date
information having a different format	formats (appendix in col. 18) and
into the format wherein M.sub.1	indicates they can be converted to the
M.sub.2 is the numerical month	format using M, D and Y variables as
designator, D.sub.1 D.sub.2 is the	claimed, see col. 8, lines 18-27.
numerical day designator and Y.sub.1	
designator, D.sub.1 D.sub.2 is the numerical day designator and Y.sub.1 Y.sub.2 is the numerical year	

designator.

г	Deigna Application	Shaughnessy US Patent 5630118
_	Reissue Application	The disclosed software assigns a
	11. A method of processing dates in a	century value to a two digit year date
	database, comprising the steps of	(7/6+) which is processing of dates
		One format which can form an input is
	providing a database with dates stored	YYMMDD, see Date Type "B" in the
	therein according to a format wherein	
	$M_1M_2$ is the numerical month	appendix at col.18,
	designator, D <sub>1</sub> D <sub>2</sub> is the numerical day	
	designator, and $Y_1Y_2$ is the numerical	mbinanaing is limited to dates
	year designator, all of dates falling	This processing is limited to dates which span 100 years, i.e., a 10-
	within a 10-decade period of time	
	which includes the decade beginning in	decade period (see below)
	the year 2000;	software "determine[s] end of current
	selecting a 10-decade window with a	
	YAYB value for the first decade of the	100 year cycle", step 16, fig. 2, 3 or
	window, YAYB being no later than the	4, as the "end" of the current cycle
	earliest $Y_1Y_2$ year designator in the	it is also at least as "early" as any
	database;	date in the database, for example, if
		"37" were the end of the 100 year
		period, then "38" would be the
		beginning and either "37" or "38" would be no later than any date in the
		range, as claimed, a century designator is determined by
	determining a century designator C <sub>1</sub> C <sub>2</sub>	
	for each date in the database, $C_1C_2$	comparing a two digit year representation to the end of the 100
	having a first value if Y1Y2 is less	year cycle date, if it is greater,
	than $Y_AY_B$ and having a second value if	then the earlier century value is
	$Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	assigned and vice versa; (col. 7,
		1
		lines 8-13) the reformatting is described at 2/30-
i	reformatting each date in the form	
=	$C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further	32 and 6/57-
	processing of the dates; and	sorting is a well known operation for
	sorting the dates in the form	Softling is a well known operation for
2		LEKA ASEA AAMNSYIRAN ABRUTINEO AL 1770 -
	$C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	the date comparison described at 1/26 and at column 8

Reissue Application	<b>♦=</b>
12. The method of claim 11, wherein	
the step of providing a database	
includes the step of	
converting pre-existing date information having a different format into the format wherein M <sub>1</sub> M <sub>2</sub> is the numerical month designator, D <sub>1</sub> D <sub>2</sub> is the numerical day designator and Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator.  15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Shaughnessy teaches a host of date formats which can be converted to the format using M, D and Y variables as claimed, see the appendix at column 18, the conversion among these formats is taught at column 8, lines 18-27  Data bases are used for accessing and using the stored information - thus manipulating database information is inherent in any database, including Shaughnessy.

		[a] 1
Reissue Application, c.		Shaughnessy 5,630,118
16. A method of proce		The disclosed software assigns a
symbolic representat:	ions of dates	century value to a two digit year date
stored in a database	, comprising	(7/6+), which is processing of
the steps of:	_	symbolic dates
providing a database	with symbolic	One format which can form an input is
representations of da		YYMMDD, see Date Type "B" in the
, <del>-</del>		appendix at col.18,
therein according to	•	
wherein $M_1M_2$ is the nu		
designator $D_1D_2$ is the		
day designator, and		
numerical year design		This processing is limited to dates
the symbolic represen	ntations of	which span 100 years, see below
dates falling within	a 10-decade	
period of time;		
selecting a window w	ith a Y <sub>A</sub> Y <sub>B</sub>	software "determine[s] end of current
value for a pivot date	1	100 year cycle", step 16, fig. 2, 3 or
window, YAYB being no		4, as the "end" of the 100 year range,
the earliest year des	1	the "end" year is one less than the
		beginning (if "37" is the last year of
the database;		a 100 year period, "38" is the first
		year of the same period), the "end"
		year is no later than any date in the
		data base as claimed
determining a century	y designator	the century designator is determined
$\mathbb{C}_1\mathbb{C}_2$ for each symboli	C	by comparing two digit representation
representation of a	date in the	to the end of the 100 year cycle date, if the year being processed is
database <sub>1</sub> C <sub>1</sub> C <sub>2</sub> having	a first value	greater, then the earlier century
$=$ if $Y_1Y_2$ is less than	$Y_AY_B$ and having	value is assigned and vice versa;
$\Box$ a second value if $Y_1Y_2$	12 is equal to	(col. 7, lines 5-15)
or greater than YAYB	and;	
reformatting the sym		the reformatting is described at 2/30-
representation of each		32; 6/57-
representation of a		
database, without the		While Shaughnessy adds two digits to
any new data field to		the YYMMDD data, this is the same as
with the reformatted		the only Dickens disclosure and so
		this clause cannot distinguish the
representation of ea		reference
database having the va $M_1M_2$ and $D_1D_2$ , in order		
collectively further p		
reformatted symbolic r		
of each of the symboli		
representations of eac		
22. The method of cl		Shaughnessy teaches a host of date
wherein the step of		formats (appendix in col. 18) and
		indicates they can be converted to the
database includes th		format using M, D and Y variables as
converting pre-exist		claimed, see col. 8, lines 18-27.
information having a		
format into the form		
is the numerical mon		
$D_1D_2$ is the numerical	L uay	

7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
designator and $Y_1Y_2$ is the	
numerical year designator.	
liumetteat year designator.	

	Chaughnoggy 5 630 118
Reissue application, claim 26  A method of processing dates in a database, comprising the steps of:	Shaughnessy 5,630,118  The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of symbolic dates
providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling	YYMMDD, see Date Type "B" in the appendix at col.18,  This processing is limited to dates
within a 10-decade period of time; selecting a window with a YAYB value for a pivot date of the window, YAYB being no later than the earliest Y1Y2 year designator in the database;	which span 100 years, see below  software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ and $D_1D_2$ , in order to facilitate collectively further processing, the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	the reformatting is described at 2/30-32; 6/57 While Shaughnessy adds two digits to the YYMMDD data, this is the same as the only Dickens disclosure and so this clause cannot distinguish the reference
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	sorting is a well known operation for the date comparison described at 1/26 and at column 8
27. The method of claim 26, wherein the step of providing a database includes the step of:	
converting pre-existing date information having a different format into the format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator and $Y_1Y_2$ is the numerical year designator.	Shaughnessy teaches a host of date formats (appendix in col. 18) and indicates they can be converted to the format using M, D and Y variables as claimed, see col. 8, lines 18-27.

